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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/808,540 | 03/14/2001 | Takashi Masaki | 0941.65295 | 3816 |
| 24978 | 7590 | 09/30/2004 | EXAMINER | |
| GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606 | | | | PATEL, GAUTAM |
| | | ART UNIT | | PAPER NUMBER |
| | | 2655 | | |

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|---------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/808,540 | MASAKI ET AL. |
| Examiner | Art Unit | |
| Gautam R. Patel | 2655 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 30 June 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-18, 21 and 22 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-18 is/are rejected.

7) Claim(s) 21 and 22 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

1. Claims 1-18 and 21-22 are pending for the examination.

RCE STATUS

2. The request filed on 6-30-04 for Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application is acceptable and a RCE has been established. An action on the RCE follows.

Claim Rejections - 35 U.S.C. § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-18 are rejected under 35 U.S.C. § 102(e) as being anticipated by Takeshita, US. patent 6,556,524 (hereafter Takeshita).

As to claim 1, Takeshita discloses the invention as claimed [see Figs. 1-5 especially 2-3] including decreasing the rotational speed and increasing the rotational speed, comprising the steps of:

(a) decreasing the rotational speed when a read or write margin [parameter of recording power] becomes less than or equal to a first predetermined value; and
(b) increasing the rotational speed when the read or write margin becomes greater than or equal to a second predetermined value [see table 1] or, when the frequency of generation of the servo abnormality of the tracking servo and/or the focus servo is less than or equal to a second predetermined frequency [col. 7, line 24 to col. 8, line 36 and table 1].

4. As to claim 2, Takeshita discloses:

steps (a) and (b) respectively control the rotational speed depending on a result of at least one of a test write process and a learning process which is carried out with respect to a read or write process [col. 6, line 35 to col. 7, line 23];

Takeshita discloses all of the above steps, including controlling rotational speed depending upon the test write process.

5. As to claim 3, Takeshita discloses:

said step (a) detects that the read or write margin is less than or equal to the first predetermined value when an optimum write power of a light source with respect to the optical recording medium obtained by the test write process exceeds a reference value; and

said step (b) detects that the read or write margin is greater than or equal to the second predetermined value when a margin greater than or equal to a predetermined value exists with respect to the reference value [col. 8, line 6-53].

6. As to claim 4, Takeshita discloses:

said step (a) decreases the rotational speed [fig. 3, step S26] when a read error rate improves at a write power exceeding an upper limit value of a write power obtained by the test write process or the learning process [col. 8, lines 6-53].

7. As to claim 5, Takeshita discloses:

said step (b) increases the rotational speed when the optimum write power obtained by the test write process or the learning process has a sufficient margin with respect to an upper limit value of the write power [col. 9, line 43 to col. 10, line 17 and figs 5A-5D].

8. As to claim 6, Takeshita discloses:

(c) counting up a number of times a judgement is made to decrease the rotational speed by said step (a) and counting down a number of times a judgement is made to increase the rotational speed by said step (b), and enabling said step (a) when a count reaches an upper limit value and enabling said step (b) when a lower limit value is reached [col. 8, lines 6-36 and col. 9, lines 9-36 and Table 1].

9. As to claim 7, Takeshita discloses:

said step (c) counts a number of judgements made based on a result of a test write process with a weighting larger than a number of judgements made based on a result of a learning process which is carried out with respect to a read or write process [col. 8, lines 6-36 and col. 9, lines 9-36 and Table 1].

10. As to claim 8, Takeshita discloses:

(c) measuring an amount of eccentricity of the optical recording medium, said step (a) detecting that the read or write margin is less than or equal to the first predetermined value when the measured amount of eccentricity exceeds a reference value [col 6, lines 9-32 and col. 8, lines 6-36].

11. As to claim 9, Takeshita discloses:

(c) measuring an amount of eccentricity of the optical recording medium, said step (a) switching a value of the first predetermined frequency depending on the measured amount of eccentricity [col. 6, lines 9-32 and col. 8, lines 6-36].

12. As to claims 10-18, they are apparatus claims corresponding to method claims 1-9 respectively and they are therefore rejected for the similar reasons set forth in the rejection of claims 1-9 respectively, supra.

NOTE: Takeshita was cited as prior art references in paper no. 6, mailed 10-10-03.

13. Applicant's arguments with respect to claims 1-18 and 21-22 have been considered but are moot in view of the new grounds of rejection.

Allowable Subject Matter

14. Claims 21 & 22 are objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

NOTE: Claims 21-22 are allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose a storage apparatus having a spindle motor which rotates optical recording medium with two or more speeds includes a controller which increases and decrease speed based on read or write margin [parameter such as power of write or read for the disk] also controls speed based on "frequency of generation of servo abnormality of tracking or focus servo is greater than or equal to a first predetermined frequency". It is noted that the closest prior art, Takeshita and Takayuki shows a similar apparatus which discloses speed control based on read or write margin. However they fails to disclose storage of parameter indicating frequency of error and comparing this to predetermined frequency of error generation.

Contact Information

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is (703) 308-7940. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To can be reached on (703) 305-4827.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-4700 or the group Customer Service section whose telephone number is (703) 306-0377.



GAUTAM R. PATEL
PRIMARY EXAMINER

Gautam R. Patel
Primary Examiner
Group Art Unit 2655

September 10, 2004